

REMARKS

Claims 1-5, 7-11, 13, 17, 18, and 20 are pending; all are rejected. Claims 1, 9, and 17 are independent and the rest of the pending claims depend from claims 1, 9, or 17. No amendments are made.

Claims 1-4, 7, 9-11, 13, 17, 18, and 20 are patentable over Hsu in view of Lin, and Vossen.

Applicants respectfully submit that claims 1-4, 7, 9-11, 13, 17, 18, and 20 are patentable over Hsu (US 6,768,403) in view of Lin (US 6,818,936), and Vossen (page 526 of *Thin Film Processes II* by John L. Vossen and Werner Kern, 1991) under 35 U.S.C. 103(a). Hsu, Lin, and Vossen together or alone, fail to teach or suggest all features of independent claims 1, 9, and 17 and their dependencies (claims 2-8, 10-13, and 18-20). For example, Hsu, Lin, and Vossen together or alone, fail to teach or suggest forming a dielectric layer over the sacrificial layer wherein the dielectric layer comprises silicon, oxygen, and nitrogen (e.g., silicon oxynitride) and wherein forming the dielectric layer occurs at a temperature between approximately 200 and 300 degrees Celsius, as included in claims 1, 9, and 17.

The Examiner relies upon Hsu to teach all features of the independent claims, except for two features: 1) forming the dielectric layer comprising silicon, oxygen, and nitrogen and 2) forming the dielectric layer at a temperature between approximately 200 and 300 degrees Celsius. The Examiner relies upon Lin to teach the first feature (forming the dielectric layer comprising silicon, oxygen, and nitrogen) and relies upon Vossen to teach the second feature (forming the dielectric layer at a temperature between approximately 200 and 300 degrees Celsius.) The disagreement between the Examiner and Applicants is with respect to the second feature: forming a dielectric layer...at a temperature between approximately 200 and 300 degrees Celsius.

Vossen teaches that deposition temperatures of 250 to 350 degrees Celsius are used in a plasma enhanced chemical vapor deposition (PECVD) process for forming silicon nitride films. (See lines 7-10 of the first paragraph on pg. 526.) The claims include the feature that the dielectric comprises silicon, oxygen, and nitrogen. Silicon nitride films do not include oxygen. Silicon nitride films only include silicon and nitrogen. If a film consists of silicon, oxygen and nitrogen it is called a silicon oxynitride film. Lin supports this argument that silicon nitride films are a different material than silicon oxynitride films because Lin refers to them as separate materials. More specifically, Lin states, "Blanket dielectric layers may be formed from material including but not limited to silicon oxide materials, silicon nitride materials, and silicon oxynitride materials...." (Column 6, lines 1-4.) Therefore, Vossen does not teach or suggest, forming a

dielectric layer comprising silicon, oxygen, and nitrogen at a temperature between approximately 200 and 300 degrees Celsius, as the Examiner contends Vossen does.

Furthermore, even in combination with Hsu and Lin, Vossen does not teach or suggest forming a dielectric layer comprising silicon, oxygen, and nitrogen at a temperature between approximately 200 and 300 degrees Celsius because Vossen only teaches forming a silicon nitride film at temperatures between 250 and 350 degrees Celsius.

For at least the above reasons, claims 1-4, 7, 9-11, 13, 17, 18, and 20 are patentable over Hsu in view of Lin and Vossen under 35 U.S.C. 103(a).

Claims 5 and 8 are patentable over Hsu in view of Lin, Vossen, and Murakami.

Applicants respectfully submit claims 5 and 8 are patentable over Hsu in view of Lin, and Vossen and further in view of Murakami (US 2005/0156174) under 35 U.S.C. 103(a). As previously discussed, Hsu, Lin, and Vossen, fail to teach or suggest all features of independent claim 1, from which claims 5 and 8 depend. Murakami, alone or in combination with Hsu, Lin, and Vossen also fails to teach or suggest the features upon which the Examiner relies upon Hsu, Lin, and Vossen to teach or suggest. More specifically, Murakami, alone or in combination with Hsu, Lin, and Vossen, fails to teach or suggest forming a dielectric layer including silicon, oxygen, and nitrogen at a temperature between approximately 200 and 300 degrees Celsius. Murakami is silent as to the temperature at which to form a dielectric layer. For at least this reason, claims 5 and 8 are patentable over Hsu, Lin, Vossen, and Murakami under 35 U.S.C. 103(a).

Respectfully submitted,

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